CLAIMS

1. A swash plate type variable capacity fluid machine for supplying and discharging applied fluid comprising: a conical body and a disk body rotatably supported with their center axes crossing, the conical body and the disk body confronting each other; an enclosure wall whose inner spherical surface surrounds a space in front of a circular disk surface of the disk body, the spherical surface being concentric with the disk surface; partitioning means for dividing the space between the conical body and the disk body into a plurality of variable capacity compartments in respect of radius lines on the disk surface; and supplying/discharging through holes communicating with the variable capacity compartments; characterized in that:

the partitioning means comprises a partition plate movably fitted in a diameter groove of the conical body and an abutment line formed between the conical body and the disk body on their confronting surface; the enclosure wall is integrally connected to the disk body; and the conical body and the disk body are provided with a synchronous mechanism thereby synchronizing their rotation about their center axes.

2. The swash plate type variable capacity fluid machine according to claim 1, wherein the conical body has a rear axle integrally extending along its center axis on the rear side, the rear axle having an end surface onto which an increased pressure is delivered from the variable capacity compartments via pressure channels, the end surface thus applying a counter force in the direction of the variable capacity compartments.

3. The swash plate type variable capacity fluid machine according to claim 2, wherein the rear axle has a cylindrical axle integrally constructed to support the rear axle, the cylindrical axle having a plurality of through holes made on its entire circumference at regular intervals, thereby permitting the applied fluid to pass through the through holes.

4. The swash plate type variable capacity fluid machine according to claim 1, wherein the disk body has supplying/discharging through holes communicating with the variable capacity compartments on one end and with a gate member on the other end, the gate member gating supplying/discharging channels in response to its predetermined angular positions, thereby supplying and discharging the applied fluid.